## ABSTRACT

A catalyst for bulk polymerization of a polymerizable unsaturated compound of the invention comprises a compound having at least one thiol group and a secondary hydroxyl group and represented by the following formula (I):

(I.)

$$R^{1} = \begin{array}{cccc} R^{2} & R^{3} & R^{4} \\ I & I & I & I \\ C & C & C & C \\ I & I & I \\ SH & OH & R^{6} \end{array}$$

wherein R<sup>1</sup> to R<sup>5</sup> are each a hydrogen atom or an alkyl group, and R<sup>6</sup> is a hydroxyl group, an alkyl group or the like. Also a process for bulk polymerization of the invention comprises polymerizing a polymerizable unsaturated compound in an inert gas atmosphere substantially in the absence of a solvent using, as a catalyst, a compound having at least one thiol group and a secondary hydroxyl group and represented by the above formula (I). According to the catalyst or the process of the invention, bulk polymerization can be carried out in one-component catalyst system in a high yield without suffering a runaway reaction.

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